Determinant Factors for Managing Competitive Advantage on Organizational Sustainability

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Abstract

Sustainability has become a relevant issue worldwide as organizations and consumers today are more concerned with ecological and social issues when consuming and using products and services, and therefore, they are taking greater responsibility for strategic organizational sustainability and environmental management. There are several factors that have proven to create company sustainability. However, different with previous studies which generally try to examine one or two factors that are considered affectual on organizational sustainability, this study tries to reveal the role of several factors such as digital transformation, operational effectiveness, supplier relationship management, logistics effectiveness, and competitive advantage on organizational sustainability. The subjects in this study are three newcomer IT manufacturers. This research is conducted with a quantitative approach with the subject being the service users of newcomer IT producer companies as many as 75 companies with 200 respondents. The analysis used in this study is a Structural Equation Model (SEM) approach with the smart PLS. The results of the analysis show that digital transformation, operational effectiveness, supplier relationship, and competitive advantage have significant effect on organizational sustainability while logistics effectiveness has no effect. Therefore, any company needs to determine the significant factors to reach the advantages. In addition, because this research only focuses on several factors such as operational effectiveness, supplier relationship, logistics effectiveness, and competitive advantage, other research that involves several factors of company sustainability needs to be conducted.

Keywords

Competitive Advantage, Organizational Sustainability, IT Manufactures, Digital Transformation.

1. Introduction

Society today is experiencing rapid dynamic changes in the context of the global economy. A time when companies face new opportunities and threats in achieving sustainable organizational development at their own pace and pace (Jamwal et al.). In the new global contextual economic and technological changes, organizations must develop under certain environmental conditions; one of which is the sustainability of a company. Sustainability has become a relevant issue worldwide as organizations and consumers today are more concerned with ecological and social issues when consuming and using products and services, and therefore, they are taking on greater responsibility for strategic organizational sustainability and environmental management (Kuzma et al.). Having company sustainability may have several advantages, such as able to improve their brand image, reduce overall running costs, is future–proofing its business against any future levies, attract right investors and employees, etc.

Organizations may have different approaches to achieving it means and goals due to differences in capabilities, resources, knowledge, expertise, etc. Organizations are involved in operational relationships the interactions between individuals, organizational groups, and institutions in the workplace make decisions that are channeled to ongoing organizational and personal development. Organizational sustainability is affected by global and local sustainability challenges, concerns, and issues that need to be assessed and analyzed in order to design policies, strategies and practices that are likely to have broader economic, social and environmental impacts (Bastas and Liyanage).

Gomez-Trujillo & Gonzalez-Perez, (2021) found that digital transformation can be said to be the driving force or initial strategy that can bring a company to organizational sustainability. To be able to maintain business sustainability

from an economic, environmental, and social perspective, companies need to improve their digital capabilities needed to face the digital revolution. Otherwise according to Mangla et al., (2019) to improve corporate sustainability, a business organization needs to rely on a logistics system that has higher performance and is more reliable. Research by Mangla et al., (2019) found that effective logistics management can reduce waste and financial losses while contributing to environmental preservation. Further research by Awan et al., (2018) found that in a business activity, relationship management related to the commitment between the two parties plays a role in improving the sustainability of the company from the social aspect.

There are several factors that have proven to create company sustainability. Saeidi et al., (2019), in his research, found that risk management is one of the factors that affect the competitiveness of the company. In addition, the speed of innovation and the quality of innovation also affect competitiveness (Le and Lei). However, different with previous studies which generally try to examine one or two factors that are considered affectial on organizational sustainability, this study tries to reveal the role of several factors such as digital transformation, operational effectiveness, supplier relationship management, logistics effectiveness, and competitive advantage on organizational sustainability.

Therefore, this study will examine the factors that are considered to have an effect on organizational sustainability, including digital transformation as proposed by El Hilali & El Manouar (2019) through his research that digital transformation is a strategy that must be applied today so that companies can continue to grow in an increasingly competitive world. Next is operational effectiveness, which plays a role in the effective and efficient deployment of various production processes that have an impact on the company's sustainability (Tornjanski et al.; Sanchez-Planelles et al.). Then supplier relationship management that needs to be improved to support the sustainability of the company's performance in order to meet consumer needs (Adesanya et al.). Further logistic effectiveness factor, and competitive advantage. With the title "Determinant Factors For Managing Competitive Advantage On Organizational Sustainability" this study seeks to reveal related factors that can increase a company's competitive advantage and help companies achieve organizational sustainability. With this research, it is hoped that it can help newcomer companies in the IT field to evaluate and determine management strategies in achieving organizational sustainability by utilizing their competitive advantage.

2. Literature Review

2.1 Company Sustainability

Sustainability report is the practice of measuring, revealing and accountability efforts of sustainability activities that aimed to achieving sustainable development. This sustainable development includes three aspects, that are environmental, social and economic aspects. Sustainable development is a concept where meeting the needs of human life should not interfere with the ability to meet future needs. To support sustainable development, the sustainability report is used as a medium for company information to stakeholders (Muallifin and Priyadi). Sustainability report is a voluntary report, but it has become a trend nowadays for companies to reveal social and environmental responsibility. The practice of social report and environmental activities that are revealed in the sustainability report requires guidance. The current guideline is the Global Reporting Initiative (GRI). The environmental, social and economic aspects in which there are indicators based on the Global Reporting Initiative (GRI).

Sustainability reports givem by companies can provide several benefits, including providing information to stakeholders (shareholders, government, local community members) to increase company prospects and help realize transparency, help build reputation as a tool that contributes to increasing brand value, market share, and long-term customer loyalty, which reflects how the company manages its risks; used as a stimulation of leadership thinking and performance supported by a competitive spirit, developing and facilitating the implementation of a better management system in managing environmental, economic and social impacts, reflecting the long-term desire of shareholders, helping to build shareholder engagement with a long-term vision and help demonstrate how to increase company value in terms of social and environmental issues. This research use (Muallifin and Priyadi) indicator of company sustainability

2.2 Digital Transformation

Digital transformation refers to changes and transformations that are driven and built on the digital foundation of technology. In a company, digital transformation is defined as an organization's shift to big data, analytics platforms, cloud, mobile and social media. While organizations are constantly changing and evolving in response to changing

business landscapes, digital transformation is change that builds on the foundation of digital technology, ushering in unique changes in business operations, business processes and value creation (Libert et al.). For example, Libert et al., (2016) differentiate between digital upgrade, which is the use of digital technology to increase efficiency and effectiveness in an enterprise's business processes, and digital transformation, which occurs when digital technology is used to radically change overall business operations, value creation, and in some cases new digital product offerings. Through digital transformation, organizations can integrate digital technology in many aspects of their operations and are also able to engage customers with emerging digital innovations (Aral and Weill). Having traditional IT skills implies the ability to shift to emerging digital transformations (Anand et al.). Anecdotal evidence shows that companies that have successfully implemented digital transformation excel at generating revenue using existing resources (Westerman et al.). Therefore, companies that have embraced digital transformation can effectively take advantage of digital connections and communication among key partners in the value chain. This research uses (Putri et al.) indicator's.

2.3 Operational Effectiveness

Operational effectiveness refers to the ability to build processes, based on core organization capabilities, that drive them to exceed customer expectations (Evans and Lindsay; M. E Porter). Operational effectiveness involves improving and measuring process performance by leading and controlling operations within the company. Better use of resources through these core processes enables organizations to eliminate waste and reduce costs, adapt more appropriately to technological innovations, and therefore perform better than competitors (M. E Porter). By studying how a company performs its primary and support activities for service delivery, the company can determine how it can add value at each stage of the service delivery process, and look for ways to continuously improve while meeting its operational performance goals. (Rosenbusch et al.; M. E Porter). The five dimensions or goals that organizations want to achieve in order to achieve operational effectiveness include cost, quality, reliability, flexibility and speed (Hill). Operational effectiveness relates to budget costs (Hill). Furthermore, improving cost performance means that organizations need to identify inefficiencies and waste in processes such as procurement, product or service design, and staff performance (Russell and Taylor). However, it is not just another financial measure as the emphasis is on identifying improvement opportunities and not just the costs of areas of failure (Prajogo dan Goh 2007). Continuity of improvement is achieved by proper disaggregation of the cost components that affect the organization's total cost performance (Slack et al.). Cost measurement allows quality-related activities to be expressed in the language of management (Prajogo dan Goh 2007). As a result, prevention and assessment costs (conformity costs) are considered investments, while failure costs (non-conformance costs) are considered losses (Prajogo dan Gan 2007). This research use (Kaszubowski) indicator's.

2.4 Supplier Relationship

According to Mettler & Rohner (2009) definition of Supplier Relationship Management (SRM) is a comprehensive approach to improve cooperation (business relationship level), coordination (process level), and communication (information systems level) between companies and their suppliers to continuously improve the efficiency and success of collaboration while simultaneously improving quality, security, and innovation. Thus Tangus et al., (2015) defines SRM as the discipline of strategic planning for and managing all interactions with third-party companies that supply goods and/or services to the company in order to maximize the value of those interactions. This includes creating closer and more collaborative relationships with key suppliers to uncover and deliver new value and reduce risk. The goals of Supplier Relationship Management according to Mettler & Rohner (2009) is to streamline and make the process more effective between the company and its suppliers. Indirectly, SRM also aims to improve the quality of information, products, services, and workforce capabilities related to quality. This research use (Tate et al.) indicator's.

2.5 Logistic Effectiveness

According to Kerin, Hartley, dan Rudelius (2009) Logistics involves activities that focus on getting the right quantity of the right product to the right place at the right time at the lowest possible cost. Physical distribution and logistics effectiveness have a great impact on company satisfaction and costs. Logistics management is important in the supply chain, the purpose of the logistics system as the main logistics function and the need for integrated supply chain management (Supply Chain Management). This indicator og logistic effectiveness in this research is adopted by (Kotler, 2006).

2.6 Competitive Advantage

Competitive advantage is the result of implementing strategies that utilize various company resources (Hossain et al.), Competitive advantage is an ability that can be obtained through the characteristics and resources of a company to have higher performance than other companies in the same industry or market (Michael E. Porter). Otherwise according to (Michael E Porter) Competitive advantage cannot be understood by looking at a company as a whole, but must come from the origin of that competitive advantage, namely the various different activities carried out by the company in designing, producing, marketing, delivering and supporting its products.

Based on the things above, it can be concluded that competitive advantage is a benefit strategy for companies that cooperate to create a more effective competitive advantage in their market. Competitive advantage is a value to the company from the results of implementing its strategy, so that the company has greater cost savings and more value than its competitors. This advantage is one of the strengthening of the company's bargaining power which is more to consumers. Companies that have competitive advantages always have the ability to understand changes in market structure and are able to choose effective marketing strategies. Each company's choice of the above generic strategy will depend on an analysis of the business environment to determine opportunities and threats. According to study by (Michael E Porter), There are several ways to gain competitive advantage, among others, by offering products or services at a minimum price (cost leadership), offering products or services that are unique compared to their competitors (differentiation), or focusing on certain segments (focus). Moradi-Moghadam et al., (2016) the indicators of competitive advantage. Indicator of competitive advantage is adopted by (Moradi-Moghadam et al.)

2.7 Research Framework

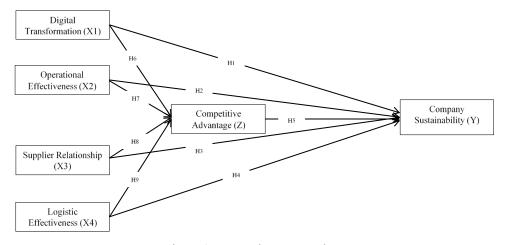


Figure 1. Research Framework

From the research framework (Figure 1) above, there are 9 hypotheses, namely:

- H1: The Effect of Digital Transformation (X1) on Company Sustainability (Y)
- H2: The Effect of Operational Effectiveness (X2) on Company Sustainability (Y)
- H3: The Effect of Supplier Relationship (X3) on Company Sustainability (Y)
- H4: The Effect of Logistic Effectiveness (X4) on Company Sustainability (Y)
- H5: The Effect of Competitive Advantage (Z) on Company Sustainability (Y)
- H6: The Effect of Digital Transformation (X1) on Competitive Advantage (Z)
- H7: The Effect of Operational Effectiveness (X2) on Competitive Advantage (Z)
- H8: The Effect of Supplier Relationship (X3) on Competitive Advantage (Z)
- H9: The Effect of Logistic Effectiveness (X4) on Competitive Advantage (Z)

3. Methods

Quantitative techniques are used in this study. The purpose of quantitative studies is to test known hypotheses. This method uses the numbers generated from measurements made with a questionnaire on the study variables. The subjects in this research are newcomer IT manufacturers that establish during 2018-2020 that are growing rapidly, a number of three companies such as GFR, AEI, and CTH. The samples are taken from random sampling in which the customers from the three companies and involve 75 customers in total. The 75 costumers are selected because they have worked together with each company of GFR (20), AEI (35), or CTH(20) for more than one year.

Outer Model Analysis

The analysis used in this study is a structural Equation Model (SEM) approach with the smart PLS (Ghozali). With this approach, researchers can perform component or variance-based measurements and simultaneously test relatively complex relationships. The Instruments that used in this research are validity and reliability test, and R square test. Testing the validity and reliability can be seen in: 1) Convergent Validity, 2) Discriminant Validity, 3) Composite Reliability, and 4) Cronbach's Alpha. The dependent construct R-square is used to analyze the effect of the specific independent variable on the dependent latent variable, which shows the magnitude of the effect.

Inner Model Analysis

Deep Model Analysis, also known as Structural Modeling, is a technique for predicting causal relationships between model variables. Hypotheses were tested during deep model analysis in Smart PLS test. The value of t-statistics and probability values can be shown in evaluating the hypothesis. The results of the t-statistics used to test the hypothesis by using the statistical value is 1.96 for alpha 5 percent, while the beta score is used to determine the direction of the influence of the relationship between variables. The criteria for acceptance/rejection of the hypothesis are:

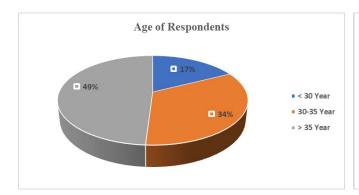
Ha= t-statistic > 1.96 with score p-values < 0.05.

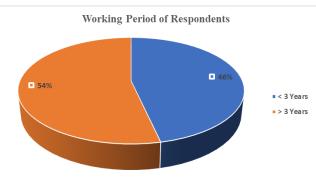
H0= t-statistic < 1.96 with score p-values>0.05

4. Results and Discussion

4.1 Data Descriptive

The 75 companies that involve in this research is explained in the following with a total of 200 respondents.





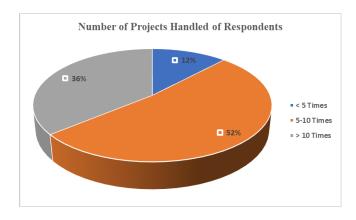


Figure 2. Criteria of Respondent

From the Figure 2 above, it can be seen that the respondents are 35 people in the age of less than 30 years old, 67 people in the age of 30-35 years old, and 98 people in the age of more than 35 years old. Other than that, 93 people have a working period of less than 3 years and the remaining 107 people have a working period of more than 3 years. In this study, 24 people have the number of projects handled in more than 5 times. Another 104 people have handled 5-10 projects and 72 other people have handled more than 10 projects.

4.2 Validity Test

Operational Effectiveness (X2)

Supplier Relationship (X3)

Validity test is used to measure the valid or invalid of a questionnaire. In this research, validity test is carried out using convergent validity and AVE (Table 1). The instrument is declared valid if the AVE value is > 0.5 and the outer loading value is (> 0.6).

Variable Indicator AVE **Outer Loading** Result X1.1 0.670 Valid X1.2 0.745 Valid X1.3 0.833 Valid X1.4 0.777 Valid Valid Digital Transformation (X1) X1.5 0.553 0.791 X1.6 Valid 0.801 X1.7 0.715 Valid X1.8 Valid 0.668 X1.9 0.671 Valid X2.1 0.650 Valid

0.530

0.674

0.717

0.752

0.761

0.697

0.765

0.737

0.706

0.794

0.770

0.844

0.847

X2.2

X2.3

X2.4

X2.5

X2.6

X2.7

X2.8

X2.9

X3.1

X3.2

X3.3

Table. 1 Validity Test Result

Valid

Logistic Effectiveness (X4)	X4.1	_	0.674	Valid
	X4.2		0.750	Valid
	X4.3		0.790	Valid
	X4.4] [0.804	Valid
	X4.5	0.595	0.711	Valid
	X4.6		0.810	Valid
	X4.7		0.795	Valid
	X4.8		0.791	Valid
	X4.9		0.803	Valid
Company Sustainability (Y)	Y1.1		0.756	Valid
	Y1.2	0.547	0.761	Valid
	Y1.3		0.704	Valid
	Y1.4		0.753	Valid
	Y1.5		0.756	Valid
	Y1.6		0.807	Valid
	Y1.7		0.626	Valid
Competitive Advantage (Z)	Z1		0.644	Valid
	Z2] [0.763	Valid
	Z3	0.629	0.810	Valid
	Z4		0.889	Valid
	Z 5] [0.836	Valid

4.3 Reliability Test

Researchers used 2 types of reliability tests, that are the Cronbach Alpha test and the Composite Reliability test (Table 2). Cronbach Alpha measures the lower bound reliability. The data is declared good if the data has a Cronbach alpha value > 0.7. Meanwhile, composite reliability measures the actual reliability value of a variable. Data is declared to have high reliability if it has a composite reliability score > 0.7

Table 2. Reliability Test Result

	Cronbach's Alpha	Composite Reliability
Company Sustainability (Y)	0,861	0,894
Competitive Advantage (Z)	0,849	0,893
Digital Transformation (X1)	0,898	0,917
Logistic Effectiveness (X4)	0,932	0,942
Operational Effectiveness (X2)	0,911	0,925
Supplier Relationship (X3)	0,758	0,861

4.4 R-Squared Test

R-Square Coefficient determination test (R-Square) used in the measurement to measure how much the endogenous variable is influenced by other variables. Based on the data analysis carried out using the SmartPLS program, the R-Square value is obtained as shown in the Table 3 below.

Table. 3 R-Square Test Result

	R Squared	R Squared Adjusted
Company Sustainability (Y)	0.921	0.916

Competitive Advantage (Z)	0.820	0.812
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Based on the test results (Table 3), the R-square score for company sustainability is 0.921, which means company sustainability affected by Competitive Advantage, Digital Transformation, Logistic Effectiveness, Operational Effectiveness, and Supplier Relationship of 92.1% and the rest is affected by variables that have not been explained in this study. Then the r squared score for competitive advantage is 0.820 which means Company Sustainability, Digital Transformation, Logistic Effectiveness, Operational Effectiveness, and Supplier Relationship of 82% and the rest is influenced by variables that have not been explained in this study.

4.5 Hypothesis Test (Table 4)

Table. 4 Hypothesis Test Result

Direct Effect

Direct Effect					
	Original	T Statistics	P		
	Sample (O)	(O/STDEV)	Values		
Competitive Advantage (Z) -> Company Sustainability (Y)	0,233	2,411	0,016		
Digital Transformation (X1) -> Company Sustainability (Y)	0,276	4,025	0,000		
Digital Transformation (X1) -> Competitive Advantage (Z)	0,204	2,099	0,036		
Logistic Effectiveness (X4) -> Company Sustainability (Y)	-0,063	0,588	0,557		
Logistic Effectiveness (X4) -> Competitive Advantage (Z)	0,119	0,858	0,392		
Operational Effectiveness (X2) -> Company Sustainability (Y)	0,254	2,611	0,009		
Operational Effectiveness (X2) -> Competitive Advantage (Z)	0,107	0,780	0,436		
Supplier Relationship (X3) -> Company Sustainability (Y)	0,332	5,087	0,000		
Supplier Relationship (X3) -> Competitive Advantage (Z)	0,543	7,992	0,000		

Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDE V)	P Values
Digital Transformation (X1) -> Competitive Advantage (Z) -> Company Sustainability (Y)	0,047	0,047	0,032	1,477	0,140
Logistic Effectiveness (X4) -> Competitive Advantage (Z) -> Company Sustainability (Y)	0,028	0,022	0,034	0,803	0,422
Operational Effectiveness (X2) -> Competitive Advantage (Z) -> Company Sustainability (Y)	0,025	0,027	0,036	0,686	0,493
Supplier Relationship (X3) -> Competitive Advantage (Z) -> Company Sustainability (Y)	0,126	0,119	0,053	2,385	0,017

Digital Transformation (X1) Affected Company Sustainability (Y)

The results of the digital transformation hypothesis test on company sustainability get a score (p = 0.276) with p values of 0.000 (p < 0.05) and t statistic of 4.025 (p > 1.96) indicating that there is a significant positive relationship of digital transformation variables and company sustainability. The better the digital transformation, the better the company sustainability will be. This result is in accordance with study by Gomez-Trujillo & Gonzalez-Perez, (2021) through his research found that implementing digital transformation can help improve company sustainability. Similar results were also found in El Hilali et al., (2020) where the digital transformation followed by customer management, data and innovation has a significant impact on efforts to achieve corporate sustainability.

Operational Effectiveness (X2) Affected Company Sustainability (Y)

The results of the operational effectiveness hypothesis test on company sustainability get a score (p = 0.254) with p values of 0.009 (p <0.05) and t statistics of 2.611 (p> 1.96) indicating that there is a significant positive relationship of operational effectiveness and company sustainability variables. The better the operational effectiveness, the better the company sustainability. Gozali, (2013) in his research revealed that operational effectiveness is a measure of

performance in a company where the more effective the company's performance will be better. There is a positive relationship of company performance and company sustainability where the better the performance, the better the company's sustainability will be (Aifuwa).

Supplier Relationship (X3) Affected Company Sustainability (Y)

The results of the supplier relationship hypothesis test on company sustainability get a score (p = 0.332) with p values of 0.000 (p < 0.05) and t statistics of 5.087 (p > 1.96) indicating that there is a significant positive relationship of supplier relationship variables and company sustainability. The better the supplier relationship, the better company sustainability will be. Amoako-Gyampah et al., (2019) in his research revealed that supplier relationship management has an effect on company performance, especially domestic companies. There is a positive relationship of company performance and company sustainability where the better the performance, the better the company's sustainability will be (Aifuwa).

Logistic Effectiveness (X4) Not Affected Company Sustainability (Y)

The results of the logistic effectiveness hypothesis test on company sustainability get a score (p = -0.063) with p values of 0.557 (p>0.05) and a t statistic of 0.588 (p<1.96) indicating that there is no effect of logistics effectiveness on company sustainability. This result is not accordance with study Hidayat et al., (2017) who found that logistics efficiency in the supply chain can increase competitiveness as well as logistics sustainability.

Competitive Advantage (Z) Affected Company Sustainability (Y)

The results of the competitive advantage hypothesis test on company sustainability get a score (p = 0.233) with p values of 0.016 (p < 0.05) and t statistics of 2.411 (p > 1.96) indicating that there is a significant positive relationship of the competitive advantage variable and company sustainability. The better the competitive advantage, the better the company's sustainability. Muchtar et al., (2018) explain that competitive advantage has a positive and significant effect on company performance. Then between the company's performance and the company's sustainability there is a positive relationship where the better the performance, the better the company's sustainability will be (Aifuwa).

Digital Transformation (X1) Affected Competitive Advantage (Z)

The results of the digital transformation hypothesis test on competitive advantage get a score (p = 0.204) with p values of 0.036 (p <0.05) and t statistics of 2.099 (p> 1.96) indicating that there is a significant positive relationship of digital transformation variables and competitive advantage. The better the digital transformation, the better the competitive advantage. This is in accordance with research by Xue et al., (2022) who found that digital transformation can help companies achieve a sustainable competitive advantage. Furthermore, digital transformation affects the achievement of the company's competitive advantage through boundary spanning by 75%.

Operational Effectiveness (X2) Not Affected Competitive Advantage (Z)

The results of the operational effectiveness hypothesis test on competitive advantage get a score (p = 0.107) with p values of 0.436 (p>0.05) and t statistic of 0.780 (p<1.96) indicating that there is no effect of operational effectiveness on competitive advantage. This result is in accordance with Stonehouse & Snowdon, (2007) which reveals that operational effectiveness is necessary but not sufficient to increase the competitiveness of a company. This result is the opposite of what was conveyed by De Mast, (2006) in his research which resulted in the finding that operational effectiveness and efficiency are one of the important things that need to be considered in increasing the company competitiveness.

Supplier Relationship (X3) Affected Competitive Advantage (Z)

The results of the supplier relationship hypothesis test on competitive advantage get a score (p = 0.543) with p values of 0.000 (p < 0.05) and t statistics of 7.992 (p > 1.96) indicating that there is a significant positive relationship of supplier relationship variables and competitive advantage. The better the supplier relationship, the better the competitive advantage. Research by Amoako-Gyampah et al., (2019) found that supplier relationships contribute significantly to company performance where company performance can be an indicator of the company competitiveness (Sijabat et al.).

Logistic Effectiveness (X4) Not Affected Competitive Advantage (Z)

The results of the logistic effectiveness hypothesis test on competitive advantage get a score (p = 0.119) with p values

of 0.392 (p>0.05) and t statistic of 0.858 (p<1.96) indicating that there is no effect of operational effectiveness on competitive advantage. This result contradicts the result by Qurtubi, (2021) that explained in order to improve company performance, the logistics leader needs to understand improving logistics performance through logistics effectiveness, logistics differentiation, and halal certification. Increasing the effectiveness of logistics can be done by increasing the actual performance of the business unit compared to the planned performance in terms of sales, transportation costs, warehousing costs, inventory costs, and overall costs. And it can be seen that the company's performance can be an indicator of the company competitiveness (Sijabat et al.).

5. Conclusion

The results of the analysis show that there is a significant positive relationship of the digital transformation variable and company sustainability. There is a significant positive relationship of operational effectiveness and company sustainability variables. The better the operational effectiveness, the better the company sustainability will be. There is a significant positive relationship of the supplier relationship variable and company sustainability. The better the supplier relationship, the better company sustainability will be. There is no effect of logistics effectiveness on company sustainability. There is a significant positive relationship of the competitive advantage variable and company sustainability. There is a significant positive relationship of the digital transformation variable and competitive advantage. There is no effect of operational effectiveness on competitive advantage. There is a significant positive relationship of the supplier relationship variable and competitive advantage. There is no effect of logistic effectiveness on competitive advantage.

The digital transformation, operational effectiveness, supplier relationship, and competitive advantage need maintaining in order to increase the company sustainability. The advantages of having company sustainability are that the company can improve their brand image, reduce overall running costs, is future-proofing its business against any future levies, attract right investors and employees, etc. Therefore, any company needs to determine the significant factors to reach the advantages. In addition, because this research only focuses on several factors such as operational effectiveness, supplier relationship, logistics effectiveness, and competitive advantage, other research that involves several factors of company sustainability needs to be conducted.

References

- Adesanya, Ayotunde, et al. "Improving Sustainability Performance through Supplier Relationship Management in the Tobacco Industry." *Supply Chain Management*, vol. 25, no. 4, Emerald Group Holdings Ltd., pp. 413–26, doi:10.1108/SCM-01-2018-0034, May 2020.
- Aifuwa, Hope Osayantin. "SUSTAINABILITY REPORTING AND FIRM PERFORMANCE IN DEVELOPING CLIMES: A REVIEW OF LITERATURE." *Copernican Journal of Finance & Accounting*, vol. 9, no. 1, Uniwersytet Mikolaja Kopernika/Nicolaus Copernicus University, p. 9, doi:10.12775/CJFA.2020.001, July 2020.
- Amoako-Gyampah, Kwasi, et al. "Supplier Relationship Management and Firm Performance in Developing Economies: A Moderated Mediation Analysis of Flexibility Capability and Ownership Structure." *International Journal of Production Economics*, vol. 208, Elsevier, pp. 160–70, doi:10.1016/J.IJPE.2018.11.021, Feb. 2019.
- Anand, J., et al. "Alliance Activity as a Dynamic Capability in the Face of a Discontinuous Technological Change." *Organization Science*, vol. 21, no. 6, pp. 1213–32, 2010.
- Aral, S., and P. Weill. "IT Assets, Organizational Capabilities, and Firm Performance: How Resource Allocations and Organizational Differences Explain Performance Variation." *Organization Science*, vol. 18, no. 5, pp. 763–80, 2007.
- Awan, U., et al. "Buyer-Supplier Relationship on Social Sustainability: Moderation Analysis of Cultural Intelligence." *Cogent Business & Management*, vol. 5, no. 1, 2018.
- Bastas, A., and K. Liyanage. "Integrated Quality and Supply Chain Management Business Diagnostics for Organizational Sustainability Improvement." *Sustainable Production and Consumption*, no. 17, pp. 11–30, 2019.
- De Mast, J. "Six Sigma and Competitive Advantage." *Total Quality Management and Business Excellence*, vol. 17, no. 04, pp. 455–64, 2006.
- El Hilali, Wail, et al. "Reaching Sustainability during a Digital Transformation: A PLS Approach." *International Journal of Innovation Science*, vol. 12, no. 1, Emerald Group Holdings Ltd., pp. 52–79, doi:10.1108/IJIS-08-2019-0083/FULL/XML, Feb. 2020.

- El Hilali, Wail, and Abdellah El Manouar. "Towards a Sustainable World through a SMART Digital Transformation." *ACM International Conference Proceeding Series*, vol. Part F148154, Association for Computing Machinery, doi:10.1145/3320326.3320364, 2019.
- Evans, J. R., and W. M. Lindsay. "The Management and Control of Quality." *Cincinnati, OH: South-Western*, vol. 5, pp. 115–28, 2002.
- Ghozali, Imam. "Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25 (Sembilan)." *Semarang, Universitas Diponegoro*, 2018.
- Gomez-Trujillo, A. M., and M. A. Gonzalez-Perez. "Digital Transformation as a Strategy to Reach Sustainability." *Smart and Sustainable Built Environment*, doi:https://doi.org/10.1108/SASBE-01-2021-0011, 2021.
- Gozali, N. "Dampak Penerapan Prinsip-Prinsip Good Corporate Governance Terhadap Kinerja Perusahaan." *Jurnal Ilmiah Mahasiswa Akuntansi*, vol. 1, no. 4, pp. 38–43, 2013.
- Hidayat, Syaiful, et al. "Sistem Dinamik Spasial Untuk Meningkatkan Efektifitas Dan Efisiensi Logistik Pada Rantai Pasok Pangan." *INTEGER: Journal of Information Technology*, vol. 1, no. 2, Jan. 2017, doi:10.31284/J.INTEGER.2016.V1I2.64.
- Hill, T. Operations Management. 2005.
- Hossain, M. A., et al. "Why Doesn't Our Value Creation Payoff: Unpacking Customer Analytics-Driven Value Creation Capability to Sustain Competitive Advantage." *Journal of Business Research*, vol. 131, pp. 287–96, 2021.
- Jamwal, A., et al. "Developing A Sustainability Framework for Industry 4.0." *Procedia CIRP*, vol. 98, pp. 430–35, 2021
- Kaszubowski, Daniel. "A Method for the Evaluation of Urban Freight Transport Models as a Tool for Improving the Delivery of Sustainable Urban Transport Policy." *Sustainability*, vol. 11, no. 1535, 2019.
- Kuzma, E., et al. "The Relationship between Innovation and Sustainability: A Meta-Analytic Study." *Journal of Cleaner Production*, no. 259, 2020.
- Le, Phong Ba, and Hui Lei. "The Effects of Innovation Speed and Quality on Differentiation and Low-Cost Competitive Advantage: The Case of Chinese Firms." *Chinese Management Studies*, vol. 12, no. 2, Emerald Group Holdings Ltd., pp. 305–22, May 2018, doi:10.1108/CMS-10-2016-0195/FULL/XML.
- Libert, B., et al. "Questions to Ask before Your next Digital Transformation." *Harv. Bus. Rev*, vol. 60, no. 12, pp. 11–13, 2016.
- Mangla, S. K., et al. "Logistics and Distribution Challenges to Managing Operations for Corporate Sustainability: Study on Leading Indian Diary Organizations." *Journal of Cleaner Production*, vol. 238, 2019.
- Mettler, T., and P. Rohner. "Supplier Relationship Management: A Case Study in the Context of Health Care." *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 4, no. 3, pp. 58–71, 2009.
- Moradi-Moghadam, Mohsen, et al. "The Impact of Knowledge Management Practices on Supply Chain Quality Management and Competitive Advantages." *Management and Production Engineering Review*, vol. 7, no. 1, pp. 4–12, 2016.
- Muallifin, O. R., and M. P. Priyadi. "The Influence of Sustainability Report Disclosures toward Financial Performance and Market Performance." *Jurnal Ilmu Dan Riset Akuntansi*, vol. 5, no. 5, pp. 1–20, 2016.
- Muchtar, Muliasari Kurniati, et al. "PENGARUH ORIENTASI KEWIRAUSAHAAN, KNOWLEDGE MANAGEMENT, DAN STRATEGI KEMITRAAN TERHADAP KEUNGGULAN BERSAING SERTA IMPLIKASINYA PADA KINERJA PERUSAHAAN (Studi Pada UMKM Kerajinan Logam Kecamatan Cepogo Kabupaten Boyolali)." *JURNAL BISNIS STRATEGI*, vol. 27, no. 2, Magister Manajemen, Fakultas Ekonomika dan Bisnis Undip, pp. 137–49, Dec. 2018. doi:10.14710/JBS.27.2.137-149.
- Porter, M. E. "What Is Strategy?" Harvard Business Review, 1996.
- Porter, Michael E. "Technology and Competitive Advantage." *Journal of Business Strategy*, vol. 5, no. 3, MCB UP Ltd, p. 60, 1985, doi:10.1108/EB039075/FULL/XML.
- Porter, Michael E. The Competitive Advantage of Nations. MacMillan Press Ltd, 2016.
- Putri, Novianti Indah, et al. "Kajian Empiris Pada Transformasi Bisnis Digital." *ATRABIS: Jurnal Administrasi Bisnis*, vol. 7, no. 1, 2021.
- Qurtubi. Pengaruh Kinerja Logistik Terhadap Kinerja Perusahaan Dengan Variabel Eksogen Efisiensi Logistik, Efektifitas Logistik, Diferensiasi Logistik Dan Sertifikasi Halal. UNIVERSITAS ISLAM INDONESIA YOGYAKARTA, 2021.
- Rosenbusch, Nina, et al. "Is Innovation Always Beneficial? A Meta-Analysis of the Relationship between Innovation and Performance in SMEs." *Journal of Business Venturing*, vol. 26, no. 4, Elsevier, pp. 441–57, July 2011. doi:10.1016/J.JBUSVENT.2009.12.002.
- Russell, R. S., and B. W. Taylor. "Operations Management: Quality and Competitiveness in a Global Environment."

- John Wiley & Sons Incorporated, 2006.
- Saeidi, P., et al. "The Impact of Enterprise Risk Management on Competitive Advantage by Moderating Role of Information Technology." *Computer Standards & Interfaces*, vol. 63, pp. 67–82, 2019.
- Sanchez-Planelles, Joaquin, et al. "Building a Theoretical Framework for Corporate Sustainability." *Sustainability* (*Switzerland*), vol. 13, no. 1, MDPI AG, pp. 1–21, Jan. 2021. doi:10.3390/SU13010273.
- Sijabat, Eduard Alfian Syamsya, et al. "Ambidextrous Innovation in Mediating Entrepreneurial Creativity on Firm Performance and Competitive Advantage." *The Journal of Asian Finance, Economics and Business*, vol. 7, no. 11, Korea Distribution Science Association, pp. 737–46, 2020, doi:10.13106/JAFEB.2020.VOL7.NO11.737.
- Slack, N., et al. "Operations Management." Pearson Education, 2010.
- Stonehouse, G., and B. Snowdon. "Competitive Advantage Revisited: Michael Porter on Strategy and Competitiveness." *Journal of Management Inquiry*, vol. 16, no. 3, pp. 256–73, 2007.
- Tangus, C., et al. "Effect of Supplier Relationship Management Practices on Performance of Manufacturing Firms in Kisumu County, Kenya." *International Journal of Economics, Commerce and Management United Kingdom*, vol. 11, pp. 522–30, 2015.
- Tate, Asish A., et al. "Impact Of Supply Chain Management of A Firm on Supply Chain Responsiveness and Competitive Advantage on A Firm." *The Journal Of Applied Bussiness Research*, vol. 29, no. 2, p. 499, 2013.
- Tornjanski, Vesna, et al. "Towards Sustainability: Effective Operations Strategies, Quality Management and Operational Excellence in Banking." *Bucharest*, vol. 19, no. 44, pp. 79–94, 2017.
- Westerman, G., et al. "Leading Digital: Turning Technology into Business Transformation." *Harvard Business Press*, 2014.
- Xue, Fang, et al. "Digital Transformation of Manufacturing Enterprises: An Empirical Study on the Relationships between Digital Transformation, Boundary Spanning, and Sustainable Competitive Advantage." *Discrete Dynamics in Nature and Society*, vol. 2022, Hindawi Limited, 2022, doi:10.1155/2022/4104314.

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